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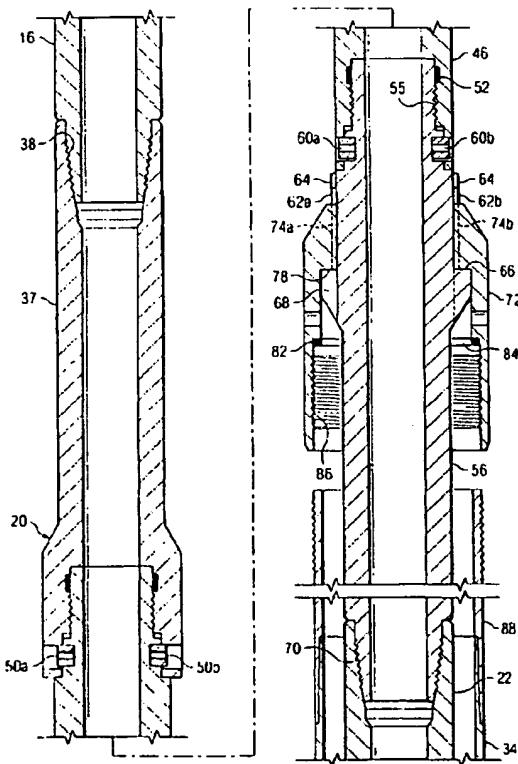
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(54) Title: APPARATUS AND METHOD FOR RUNNING A RADIALLY EXPANDABLE TUBULAR MEMBER



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(57) Abstract: A tubular apparatus (20) and method, according  
to which a first tubular member (34) is adapted to be lowered into  
a well bore and a second tubular member (120) is connected to the  
first tubular member (34). A third tubular member (102, 112) is  
normally connected to the first tubular member (34) and discon-  
nected from the second tubular member (102, 112), and is adapted  
for movement relative to the first (34) and second tubular (120,  
112) members to disconnect from the first tubular member (34)  
and connect to the second tubular member (102, 112).

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GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, IS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ,*

EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, IS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/08073

### A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) E21B 17/00, 19/16  
US CL : 166/242.7, 380,208

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 166/242.7, 380,277,377,378,381,382,77,51,301,206,242.1,242.6,207,208

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X.P.L	US 2003/0075337 A1 (Maguire) 24 April 2003 (24.04.2003), see Figures.	21-26,28-34
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Y.P.L		
Y	US 2002/0139540 A1 (Lauritsen) 03 October 2002 (03.10.2002), see paragraph 0038.	27
A	US 4,915,177 A (Claycomb) 10 April 1990 (10.04.1990), see Figures.	1-20
A	US 4,995,464 A (Watkins et al.) 26 February 1991 (26.02.1991), see Figures.	1-20
A	US 3,667,547 A (Ahlstrom) 06 June 1972 (06.06.1972), see Figures.	1-20
A	US 5,566,772 A (Coone et al.) 22 October 1993 (22.10.1993), see Figures.	1-20
A	US 4,778,088 A (Gonzalez et al.) 18 October 1988 (18.10.1988), see Figures.	1-20
A. T	US 6,516,887 B2 (Nguyen et al.) 11 February 2003 (11.02.2003), see Figures.	1-20

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:	
-A-	document defining the general state of the art which is not considered to be of particular relevance
-R-	earlier application or patent published on or after the international filing date
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-Q-	document referring to an oral disclosure, use, exhibition or other means
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"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"A"	document member of the same patent family

Date of the search completion of the international search

04 August 2004 (04.08.2004)

Date of mailing of the international search report

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Authorized officer

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**INTERNATIONAL SEARCH REPORT****C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A.E	US 6,732,806 B2 (Mauldin et al.) 11 May 2004 (11.05.2004), see Figures.	21-34
A.E	US 6,695,065 B2 (Simpson et al.) 24 February 2004 (24.02.2004), see Figures.	21-34
A.P.L	US 6,543,552 B1 (Metcalfe et al.) 08 April 2003 (08.04.2003), see Figures.	21-34
A.P.L	US 6,543,545 B1 (Chatterji et al.) 08 April 2003 (08.04.2003), see Figures.	21-34
A	US 6,325,148 B1 (Trahan et al.) 04 December 2001 (04.12.2001), see Figures.	21-34
A	US 5,785,120 A (Smalley et al.) 28 July 1998 (28.07.1998), see Figures.	21-34

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INTERNATIONAL SEARCH REPORT

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**Continuation of B. FIELDS SEARCHED Item 3:**

EAST

search terms: expandable casing, expandable tubing, expandable liner, connection, thread, torque, cement, resistance, restriction, obstruction, expander, expansion cone, expansion mandrel, rotation, tension, liner hanger